

REMARKS

In response to the Official Action of June 9, 2008, claims 1, 2, 6-17, 22-31, and 34 have been amended, claims 2-5, 18-21, 32, and 33 have been canceled, and claims 35-42 are newly submitted.

Support for the amendment to the independent claims is found in the original application as filed, including Figure 3 and in the specification, including page 18, line 13 through page 20, line 8.

In view of the claim amendment to independent claim 1, claims 3-5 and 18 have been canceled.

Independent method claim 19 and independent system claim 20, along with dependent system claim 21 have also been canceled.

System claims 22-31 have been amended into mobile navigation unit claims, while dependent system claim 32 and independent system claim 33 have been canceled.

Computer program product claim 34 has been amended to recite a computer readable medium stored with software code. Such a computer readable medium is implicit in embodiments of the invention, including microprocessor 11 shown in Figures 1 and 2 of the originally filed application.

Newly submitted claim 35 is an independent mobile navigation unit claim corresponding to claim 22, but written using means plus function terminology.

Newly submitted method claims 36-38 are directed to the actions recited being at a host unit as disclosed in the application as filed, including the embodiment shown in Figure 3.

Independent host unit claims 39-41 correspond to method claims 36-38. Independent computer readable medium claim 42 recites such a computer readable medium for performing the actions recited in method claim 36. No new matter is added.

Subject Matter of the Invention

The present invention relates to methods, a system, mobile navigation units, host units and computer-readable media in the context of navigating within a navigation area.

At a mobile navigation unit, a sequence of navigation tags that is transferred from a host unit in parts is received. The sequence of navigation tags is associated with a desired route within a navigation area, in which a plurality of navigation tags are mounted at predetermined positions. The sequence of navigation tags is determined by the host unit based on the positions of the navigation tags and on topographic information on the navigation area. The route is navigated by passing navigation tags of the sequence of navigation tags, wherein passing of a navigation tag is acknowledged. Transfer of each part of the sequence of navigation tags is initiated by the acknowledgement of the passing of a navigation tag.

This subject matter of the present invention is illustrated in Figure 3 of the patent application. It is particularly characterized in that the sequence of navigation tags is determined by the host unit, which stores the positions of the navigation tags and the topographic information on the navigation area. That is, the mobile navigation unit does not have to store the positions of the navigation tags and the topographic information. Furthermore, the sequence of navigation tags is not transferred at once from the host unit to the mobile navigation unit, but in parts, wherein transfer of each part of this sequence is triggered by an acknowledgement of a passed navigation tag. In this way, only the amount of information that is next required by the mobile navigation unit has to be retrieved from the host unit and stored, so that both bandwidth and memory requirements of the mobile navigation unit can be significantly reduced. This is of particular importance in the context of mobile navigation that uses the services of a radio communications system, since each transfer of information creates costs.

Claim Rejections - 35 USC §112

At section 6, claims 11, 15, 16, 27, and 30 are rejected as indefinite for use of the phrase “such as”. The objected to phrase has been deleted from these claims and therefore these claims are believed to be definite.

Claim Rejections - 35 USC §101

At section 9, claim 34 is rejected under 35 USC §101 as directed to non-statutory subject matter; particularly, on the grounds that claim 34 is drawn to functional descriptive material not claimed as residing on a computer readable medium. Claim 34 has been amended to recite a computer readable medium stored with software code portions for performing the method of claim 1. Such a computer readable medium is inherent in microprocessor 11 as shown in Figures 1 and 2 and described at page 13, lines 18 through page 16, line 21. As such, claim 34 is believed to be statutory under 35 USC §101. See MPEP §2106.IV.B.1(a).

Claim Rejections - 35 USC §103

At section 12, claims 1-34 are rejected under 35 USC §103 as unpatentable over US patent application publication 2003/0014186, Adam, Jr., et al (hereinafter Adam Jr.), in view of US patent 6,771,189, Yokota.

With respect to claims 1 and 34, it is asserted at section 13 that Adam Jr. discloses a method and system for navigating within a navigation area which includes a plurality of navigation tags located at predetermined positions within the navigation area and those position points are stored in the path database, wherein the method includes obtaining the destination and performs the path process which includes one or more paths connecting one or more position points, and guides the user. Reference is made to Figures 1-3 of Adam Jr.

Further, it is asserted at section 14 that although Adam Jr. does not explicitly disclose the path process includes a sequence of navigation tags, the Office asserts that Yokota suggests a method and system for calculating the route which includes a sequence of nodes as shown in at least Figures 7-11 of Yokota. Thus, the Office asserts that "it would have been obvious to an ordinary person in the art at the time of the invention was made to realize that in path process as taught by Adam, JR., et al. should include a sequence of position points and use those information to guide the user to the destination" (section 11 of the Office Action). Applicant respectfully disagrees.

Prior Art

US2003/0014186 (Adams)

Adams relates to a position detection device and method. Figure 2 of Adams depicts a block diagram of the device architecture. The radio frequency identification transceiver 100 stimulates RFIO tags 110 and 120 and reads data from the RFIO tags (Adams, paragraph [0033]). RFID communications interface 200 reads data from the RFID transceiver 100 and provides location data to the position determination 210 and the command manager 230 (Adams, paragraph [0034]). Position determination 210 translates the location data received from the RFID communications interface 200 into a known position and specific location data. It then passes this position data to the path process 220, where the new position is used to plot the user progress along the current calculated path. The path process 220 sends data to the command manager 230 to notify the user 140 of the current location and issues suggestions to change direction. When the user 140 makes a request to go to a destination, the command manager 230 issues a request to the path process 220 to either plot a new path using data from the path database 250, or retrieve a stored user path from the path database 250 (Adams, paragraph [0035]).

US 6,771,189 (Yokota)

Yokota relates to a display method and apparatus for a navigation system for displaying a guidance map showing an appropriate number of upcoming and subsequent turns on the route to the destination with an appropriate and enlarged display size. The guidance map includes a highlighted route indicating the directions of turns. The navigation system applies various test conditions to the geometry of the streets to determine the number of turns to be displayed. Then, the navigation system enlarges the guidance map so that the map covers the area that can show the adjusted number of turns and the streets at the maximum size.

Argument

As rightly stated by the Office in section 14 of the Office Action, Adams does not disclose the use of a sequence of navigation tags. Furthermore, Adams discloses only one device (see the device shown in Figure 2 of Adams) that interacts with RFID tags, but does not disclose a host unit that determines a sequence of navigation tags and transfers a sequence of navigation tags to a mobile navigation unit. Amended independent claim 1 therefore recites features not disclosed in Adams.

Yokota does not disclose interaction between a receiver and RFID tags at all. Furthermore, Yokota does not disclose that navigation information is generated by a first device and transferred to a second device and it particularly does not disclose that such information could be transferred in parts as specifically recited in amended claim 1.

It is therefore apparent that the teachings of Adams and Yokota taken alone or in combination would not suggest the subject matter of claim 1 as amended for the reasons set forth above.

It is therefore respectfully submitted that claim 1 is distinguished over the cited art.

Independent mobile navigation unit claim 22 has been amended in a manner similar to claim 1 and, for similar reasons, is believed to be allowable.

Furthermore, newly submitted independent mobile navigation unit claim 35 is believed to be allowable since it corresponds to claim 22, but written using means plus function terminology.

New independent method claim 36 recites actions from the perspective of the host unit, wherein the actions correspond to those set forth in method claim 1 (which are directed to the actions from the perspective of the mobile navigation unit). For similar reasons as those set forth with respect to claim 1, independent method claim 36 is distinguished over the cited art.

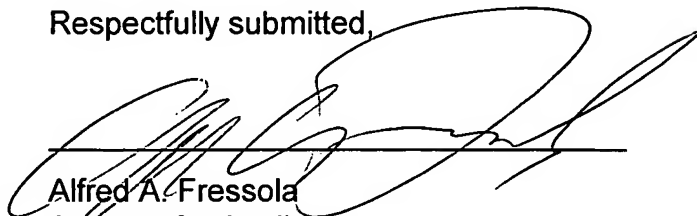
Independent host unit claim 39 recites features corresponding to method claim 36 and, for similar reasons, is believed to be distinguished over the cited art.

Since each of the independent claims of the present application is believed to be distinguished over the cited art, it is respectfully submitted that all of the dependent claims are further distinguished over the cited art at least in view of such dependent.

It is therefore respectfully submitted that the present application, as amended, is in condition for allowance and such action is earnestly solicited.

The undersigned respectfully submits that no fee is due for filing this Amendment. The Commissioner is hereby authorized to charge to deposit account 23-0442 any fee deficiency required to submit this paper.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Alfred A. Fressola', is written over a horizontal line.

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